EFFECTS OF EXERCISE AND ENVIRONMENTAL EXPOSURE ON FRACTIONAL EXHALED NITRIC OXIDE IN ADULTS

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The concentration of air pollution on the dominant surface of our country exceeds the permissible standards adopted in the European Union. The emission of air pollution from home furnaces for obvious reasons is important in the autumn and winter, they generate exceedances above the permissible standards, as is the case e.g. in Wrocław Exposure to air pollution has a number of negative health consequences that are a challenge for broadly understood public health. The availability of clean air is a prerequisite for building human health potential because it determines the possibility of regeneration and both active rest.

The aim of the study was to assess the effect of environmental exposure to PM10 and PM2,5 and effects of training in lower exposure to air pollution on FeNO levels during winter.

50 patients aged 21 - 60 (mean 27,66) took part in the study. There were 22 Sienna (small vilage in Lower Silesia) and 29 Wroclaw citizens. FeNO was measured twice. Additional questionnaire was filled in. Additionally, 26 people aged 21 – 53 (mean 35,5) were enrolled in subgroup, who excercised in open air at least 3 hours in Czarna Góra Ski Resort.

The results showed 9,64 ppm as a mean value among Wroclaw citizens and 5 pm as a mean value among Sienna citizens. Additionally, the mean FeNO level after physical exercise was 5,76 ppm.